QUARTERLY STATUS REPORT

DATE: ____4/28/03_____
PROJECT: ____Evaluation of Wildlife Crossing Structures on US Highway 93 Evaro to Polson—Phase 1: Pre-construction data collection and finalization of evaluation plan
PRINCIPAL INVESTIGATOR: Amanda Hardy, Western Transportation Institute, 416 Cobleigh Hall, Montana State University, Bozeman 59717; ahardy@coe.montana.edu; 994-2322

ANTICIPATED PRODUCTS:

- Memo to Technical Design Committee on monitoring design considerations
- Animal-vehicle collision database
- Field Methods and Safety Protocol Handbook
- Summary of literature and existing data
- Memo defining the Measures of Effectiveness
- Long-term Research and Monitoring Evaluation Plan
- Phase 1 Pre-construction Case Study
- Pre-construction field data summary report
- Pre-construction black bear movement and genetics study

STATUS OF ACTIVITIES AND PRODUCTS (E.G., PROJECT MILESTONES, DELIVERABLES, PRODUCT DISSEMINATION, RELEVANT DIVISION ACTIVITIES) FOR THE PROJECT:

Previous Quarterly Report submitted January 2003. This report entails the activities from January 1, 2002 – March 31, 2003.

On-going Activities

- Literature search and compilation of relevant data.
- Discussions on research issues, direction, and potential partnerships with MDT research manager and district biologist, Confederated Salish and Kootenai Tribes (CSKT) tribal biologist, Montana State University and University of Montana (UM) Ecology/Wildlife Departments and GIS center, Salish Kootenai College (SKC), and Wildlife Conservation Society (WCS)
- Working with sub-contractor, Garcia and Associates (GANDA), to develop handbook for field methods and protocols
- Motion- and heat-triggered photo monitoring of Montana Rail Link underpass and pilot study of tracking beds in Evaro study area
- Communication with MDT maintenance crews for purposes of collecting data on animal carcasses resulting from vehicle collisions

- Attendance of US 93 Technical Design Committee meetings to document decision-making process for wildlife crossings and fencing design issues for case study

January 2003

- Met with Kerry Foresman at UM to discuss compatibility of field methods and sampling techniques between this project and his projects at Clearwater Junction and on US 93 South in order to make comparisons, if possible, between the various study areas and effectiveness of mitigation approaches. As of April 2003, we have not formally adopted standardized techniques between these studies.
- Participated in meeting with UM PhD candidate Kathy Griffin, Dan Pletscher, Gerry Smith, Dale Becker, Gordon Stockstad, Pat Basting regarding Kathy's experimental study design to test various culverts for turtles to use in the Nine Pipes area.
- Spoke at Transportation Research Board meeting on the US 93 research.
- Continued researched on infrared video system to estimate error rates associated with tracking bed exposure to weather elements and to address potential issues with animal behavioral avoidances of tracking beds. Note: It is expected that this equipment will be purchased withWTI funds.

February 2003

- Conducted power analysis of crossing rates from Dr. Sarah Barnum's data from I-70 on Vail Pass to determine the sample size of tracking beds needed to estimate pre-construction crossings and to detect a difference from the post-construction crossing rate. Determined 62 beds across all three sub-study areas would be sufficient.
- Continued IR video research.
- Initiated collaboration with Wildlife Conservation Service (WCS) and the WTI Education Program to advertise a graduate fellowship for a qualified Native American student in pursuit of an MS in Wildlife Biology at MSU. The student will complete a research thesis on an aspect of this US 93 project, outside of and complementary to this work scope.

March 2003

- Spoke about US 93 research at Flathead Resource Organization's monthly meeting.
- Refined schedules and budgets for contract amendment. Pre-construction contract is forecasted to extend until the end of June 2006. MDT requested more detail for the scope; WTI is currently expanding the scope in response to this request.
- Worked with design consultant Entranco to clarify design details on tracking beds inside structures.
- Obtained the 2003 AVC data for US 93, Evaro to Polson, from Wayne Noem, MDT Safety Office.
- Plotted locations for tracking beds and began to organize the logistics, traffic control, and materials for a May deployment of the tracking beds in the Evaro area. Ravalli Curves and Hill tracking bed deployments will follow later in summer 2003.

Summary

Efforts, to date, have been centered on establishing the pre-construction field monitoring methods. Many aspects of the pre-construction monitoring program are in place (bear

study, camera sites under existing under-crossing structure, traffic counts, road-kill data collection, tracking bed protocol). The protocols for these data collection efforts are being refined and the databases and quality assurance/quality control systems are being established and will be documented in the Field Methods Handbook. WTI is attending TDC meetings to collaborate on monitoring design and to document decision-making processes related to wildlife mitigation for the case study. WTI is finalizing the budget and schedule in order to amend the contract with MDT for the entire $562,500.